

**ABSTRACT OF THE DISCLOSURE**

A laser used in a DWDM optical-fibre application is controlled so that, before it is powered up or down, its output power is maximally attenuated, the result being minimal cross-channel interference due to out-of-spec. wavelength. Laser control is further characterised by the steps of: (a) with laser current at zero, establishing a desired temperature of operation of the laser; (b) with output attenuation at maximum, increasing the current and regulating it to a level at which the design operating wavelength is achieved, and (c) decreasing the attenuation until the desired output power to the optical-fibre link is attained. Maximum attenuation is preferably applied during step (a).